

## SCHOLARS IN THE ISLAMIC GOLDEN AGES IN REVEALING SCIENTIFIC INFORMATION IN THE QUR'AN

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### Abstract

*Living creatures started their lives from and with water. Scientific discovery indicated that the life chain started from 'ocean' (waters) and ever since water has become the life evolution, but the Qur'an does not state this evolutionary life explicitly. Living creatures might survive from hunger for more than a month, but they might die without water for only a few days. Water is very vital in various natural events and creatures' lives, so that people say "if not by the water, there would no life". However, Muslims must hold their belief that Allah is the most powerful to create things to be.*

### Kata-kata kunci:

Scholar, golden ages, scientific.

### Scientific Culture

The Islamic golden ages was indicated with the advancement of sciences producing many muslim scholars. In the medieval era diligent muslim did researches which were inspired by the hints and information in the verses of Qur'an. Scientific community was established throughout Islamic world form a developed Islamic culture.

Then the golden period went out, and came period where the life in Islamic world was stagnant. Technological development as the outcome of scientific finding is Islamic world was backward compared to the scientific and technological development in western world.

The change of educational policy of the Ministry of Religion Of the Republic of Indonesia especially in its Higher Education Directorate which is noticed with the restructuring or converting the institution of six IAINs (State Institute for Islamic Studies) to UINs (State Islamic University) brings about some changes in

their scientific paradigm. The change of statute from the former institute to the present university has enabled the opening of non-religious study programmes. The existence of non religious studies in the university is not just a wider mandate but they are allowed by the Government (in this case the Ministry of National Education) to be the part of university mission.

In the six UINs (Riau, Jakarta, Bandung, Jogjakarta, Malang, and Ujung Pandang) are established Faculties of Sciences and Technologies. When it is glanced several years in the past, around one or more decades some of the founding fathers of IAIN thought and proposed to perform the so called "non-religious studies" such as sciences and technologies in IAIN. Pro and contra emerged to the proposal, but six universities have now officially approved and opened by the President of this Republic.

By the establishing UIN, in my opinion, it is in accordance with the concern of leaders of Islamic renaissance movement at the dawning of a new age with the awakening of muslim ummah. We are realized that muslim world in these five centuries has been experiencing misery due to being backwards in the field of science and technology.

In the field of education, internationally in the Islamic world, it is said that since the middle of 19<sup>th</sup> century and the beginning of the 20<sup>th</sup> century, the prospect of creating organization unifying the action of ummah entertained highest hope of many reformers and leaders who called for the achievement of muslim reunification and orderly action in order to serve the best interests of the Islamic nation. The purpose of establishing an educational system inspired by the Holy Qur'an and the Sunnah and also in the tune with modern educational development and concepts.

In this movement relation we know the efforts of leaders in the First International Conference on Islamic Education held in Mecca al-Mukarramah on 12-20 Rabial al-Tsani 1397 H. under the sponsorship of King Abdul Aziz University. Based on the note of recommendation adopted in the Mecca Conference, the Ninth Islamic Conference of Foreign Ministers meeting in Dakar,



Republic of Senegal on 24-28 April 1978 recommended among others:

1. To serve as guidelines in drawing up their educational systems and for preparing their text books;
2. To establish Islamic International Education, Cultural and Scientific Organization which would undertake the task of coordination between Islamic universities and educational and scientific institutions and supervising Islamic education policies.

There are also noted in international Islamic educational efforts affirming the need to emphasize the traits of Islamic culture and education promoting them in the Islamic world as well as throughout the world, stressing the need to coordinate activities of Islamic Scientific and Educational Institutional existing in various countries of the world. They are discussing how to enhance the welfare of ummah through education. Our weaknesses in sciences and technologies in these centuries have to be amended. We have to improve our education systems and learning spirit.

The famous and success of muslim scholars in medieval era should encourage our spirit to pursue knowledge. Westerners acknowledged when they compared the contributions of world scholars to the development of sciences, that muslim scientist placed far greater emphasis on experiment than had the Greeks. It means that scientific method was developed correctly in the muslim world and they also confessed that significant progress in methodology was made by muslim. Ibn al-Haytham (Alhazen) conducted experiment on optics. The most important development of the scientific method was the use of experiments to distinguish between competing scientific theories set within a generally empirical orientation. Alhazen investigations are based on abstract theories, but on experimental evidences his experiments were systematic and repeatable.

What we call science arose as a result of new methods of experiment, observation, and measurement, which were introduced into Europe by the Muslim. We remember how Ibn Sina (Avicenna) described the procedure of testing or

experimenting the effectiveness of a new drug and medication. Ibn Sina's trial, quoted from the Canon of Medicine (al Qonun fi al-Thibb):

1. the drug must be free from any extraneous accidental quality.
2. It must be used on a simple, not a composite, disease.
3. the drug must be tested with two contrary type of diseases, because some times a drug cures one disease by its essential qualities and another by its accidental ones.
4. the quality of the drug must correspond to the strength of the disease. For example, there are some drugs whose heat is less than the coldness of certain disease, so that they would have no effect on them.
5. the time of the action must be observed, so that essence and accident are not confused.
6. the effect of the drug must be seen to occur constantly or in many cases, for if this did not happen, it was an accidental effect.
7. the experimentation must be done with the human body, for testing drug on a lion or a horse might not prove anything about its effect on man.

This sound work of experimentation of muslim scholar (Avicenna) invented and developed in 980-1037 should encourage us and all muslim, that our intellect are not inferior, and the application of contemplation of prayers five times a day are not obstacles for gaining working prestige. It stated that the conduct of Avicenna in such moments of baffled inquiry, he would leave his books, perform the requisite ablutions, then go to the mosque, and continue in prayer till light broke on his difficulties. Commenting Ibn Sina performances, we conclude that epistemologically ibn Sina's innovations in sciences and medicine technologies are very Islamic.

Those who was contra to the conversion of IAIN to UIN opined that science and technology education held in the Islamic educational institution will be the competitive attractiveness and attention of students of Islamic studies. So the prior mission of IAIN to teach and maintain Islamic thought may be neglected. To answer the doubt that Islamic thought would be neglected by



the students of non-Islamic study programme, the management of university and the faculty concerned in UIN are being developing "the Revelation Guides Science" paradigm.

The managements of the six UIN are now in the effort to fulfill the mission by equipping the campus with infra structure and means and foreign loans through the government has been sought resulting success of receiving loan from Islamic Development Bank. UIN of Bandung is waiting for renovation of its buildings, and preparing human resource suitable and competent to do the missions gaining second golden era of muslim.

All academic staffs in UIN have to be able to make approach if they can not find the secret meaning or scientific hint in verses of the Holy Qur'an ontologically. When they fail to find verse or sunnah for the source of their pursuit of knowledge ontologically, they have to perform Islamic epistemology or at least their academic-works axiologically Islamic.

### Natural Phenomena

#### 1. Creation of the Universe

There are a lot of references to the pursuit of knowledge in the Qur'an. Allah orders us to travel through the earth even to the outer space (if we afford) to see how Allah originated creation. In the sight of Allah people are equal. However, Allah describes they are not equal between a knowledgeable person and an ignorant person, they are in opposite positions, they are different.

Prophet Muhammad SAW cried on the eve of receiving revelation of verses 190 and 191 of surah al-Imran:

"Verily in the creation of the heavens and the earth and (in) the alternation of night and day —there are indeed signs for men of understanding; Men who remember Allah, standing, sitting, and lying down on their sides, and contemplate the creation of the heavens and the earth (with the thought) "Our Lord! Not for nothing have You created (all) this. Glory to You! Give us salvation from the suffering of the Fire."

Tears streaming on his cheek, because he knew the future fate of his followers. There would be very little number of muslims who industriously seeing and thinking of natural phenomenon. Now a days, as we are all realized, the concerned of the prophet about the fate of *ummah* (muslims) are appearing in the very sight. We are split in factions, quarrelling each other, poor and lack of food (hunger), backwards in mastering the science and technology as if we are retarded people.

Natural phenomena of physical material and the life of organisms in our surrounding are the facts to be studied. When we understand the phenomena and master how to deal with them, then we are able to manage them for the sake of our prosperity.

Actually Allah had encouraged us to pursue knowledge as in surah al-Mujadilah part of verse 11:

يَرْفَعُ اللَّهُ الَّذِينَ ءَامَنُوا مِنْكُمْ وَالَّذِينَ أُوتُوا الْعِلْمَ دَرَجَاتٍ .... الآية

.... "Allah will raise up to (suitable) ranks (and degrees) those of you who believe and who have been granted knowledge..."

Prophet Muhammad (saas) saying from the collection of Muslim also encouraged muslim to pursue knowledge: "A person who follows a path for acquiring knowledge, Allah will make easy the passage to paradise for him".

Some muslim scientists are motivated with the orders and encouragements of Allah and Prophet Muhammad (saas), and they acknowledge that scientific theories find themselves quite close to the Qur'an. Their observations lead to the approval what Qur'an said. There are remarkable harmony between the Qur'an and scientific facts. There are very clear and positive and undeniable to contemplate then to investigate the natural occurrence around us.. These scientific approval phenomena are described in part of verse 53 of surah al-Fushshilat :

سَنُرِيهِمْ ءَايَاتِنَا فِي الْآفَاقِ وَفِي أَنْفُسِهِمْ حَتَّىٰ يَتَبَيَّنَ لَهُمْ أَنَّهُ الْحَقُّ



"Soon will We show them signs in the (farthest) horizons, and within themselves, until it becomes manifest to them that it is the truth".

In the surah al-Nuur part of verse 45 is declared :

إِنَّ اللَّهَ عَلَى كُلِّ شَيْءٍ قَدِيرٌ

"Allah creates what He wills"

This verse indicates that Allah has not finished creating, rather, it is ongoing process. This is very important for a scientific point of view because we are gradually beginning to observe and understand certain natural phenomena which are still in a process of formation. Other examples are the evolution of certain species or biotype of virus or bacteria or an insect. Avian influenza outbreak is the new evolve of influenza virus developing the Subtype A virus H<sub>5</sub>N<sub>1</sub>. It emerges as strange species (a new species). Allah creates and forms something new for people.

Through scientific observations and the natural evidences revealed, now we believe in the Qur'an that it is true all times, and within this writing, I would like to describe some theories of scientists and of my own observations on the natural phenomena those fully revealing the verses of Qur'an and the saying of prophet. Of course, my observation on the nature will relate to my academic competence and to my experiences in doing so little research works in the field of agricultural science. Agricultural science belongs to the applied science. A student of agriculture has to sit for the prerequisite basic science classes of chemistry, physics, basic geology, and fundamentally the theories of biology. Without these bases of sciences an agronomist could do wrong practices, if not do nothing in the field of modern agriculture.

In thinking of nature, it is unavoidable to think of the important roles of water. Water which is mentioned in the Qur'an is source of all life. Water is also mentioned as the layer having position under "Arş = the throne"

وَهُوَ الَّذِي خَلَقَ السَّمَوَاتِ وَالْأَرْضَ فِي سِتَّةِ أَيَّامٍ وَكَانَ عَرْشُهُ عَلَى الْمَاءِ لِيَبْلُوَكُمْ أَيُّكُمْ أَحْسَنُ عَمَلًا وَلَئِنْ قُلْتِ إِنَّكُمْ مَبْعُوثُونَ مِنْ بَعْدِ الْمَوْتِ لَيَقُولَنَّ الَّذِينَ كَفَرُوا إِنْ هَذَا إِلَّا سِحْرٌ مُبِينٌ

"And He it is Who created the heavens and the earth in six Days - and His Throne was upon the water."

In the beginning of universe formation water is also mentioned in surat al-Abasa verse 25. Water was poured after the separation of the heaven and the earth to cool the hot earth. In another context, there are verses name the water in relation to sending down it from the sky as gift in the form of precipitation or rain for the whole creatures.

Water has unique physical and chemical properties. We can heat it, evaporate it, freeze it and used it for solving or combining other things. All living creatures require water, and almost the processing happening need water.

## 2. Formation of the Earth.

When we think of how the Almighty God, Allah SWT, created the universe, one will remember the theory developed in which several independents support to a cosmological model of the universe creation. The theory is based on observation conducted by Edwin Hubble in 1929. Result of the observation indicated that the universe is expanding. This occurrence makes conclusion that universe is seen to be expanding up to now, then it must have been smaller, denser and hotter in the past. The state of the universe is such before it burst into what we know the galaxies and all planets including the earth on which we live.

The distance of galaxies are measured by analyzing the spectrum of light. Analysis on the length of wavelengths revealed a shift toward longer wavelength proportional to each galaxy's distance. This means having a relationship to a described theory of Hubble. It also gives information that the universe is undergoing a continuous expansion.



A more stronger evidence was found in 1964, the cosmic microwave radiation indicated that this universe has naturally cooled from an extremely hot and dense initial state a long time ago. In short, this model explains that universe expands from an extremely dense and hot state and continues to expand today. This happening can be described as a good analogy that space itself is expanding carrying galaxies like raisins in a rising loaf of bread.

The universe continued to grow in size and fall in temperature, hence typical energy of each particle was decreasing. This model of thought is in agreement with that of Allah revelation in surah al-Ambiya verse 30.

أَوَلَمْ يَرِ الَّذِينَ كَفَرُوا أَنَّ السَّمَوَاتِ وَالْأَرْضَ كَانَتَا رَتْقًا فَفَتَقْنَاهُمَا وَجَعَلْنَا

مِنَ الْمَاءِ كُلَّ شَيْءٍ حَيٍّ أَفَلَا يُؤْمِنُونَ

“Do not the Unbelievers see that the heavens and the earth were joined together (as one unit of creation), before we clove them asunder? We made from water every living thing. Will they not then believe?”

As a matter of fact in chemical reactions, when a thing is splitting or cloving spark or energy is produced or needed.. The verse above says that firstly, the heaven and the earth were of one thing or were closed up. A great energy was sparked when it happened to be clove asunder.

Sayyid Quthub quoted scientists, at the time the heaven and the earth clove, the temperature of earth surface was 12.000 degrees Fahrenheit. In such the very high temperature there would not be elements in a compound form. All of matters are free as a single element. And from that time on the earth releasing its energy or heat into space and outer space. The decrease of heat on the earth may occur gradually or acceleratedly. Surah al-Hud verse 7 states that the heaven and the earth are created in six days. We count a year for duration of around 365 days in the presence of the sun. How we measure the time then, when the

sun is still in processing. However, the duration reckoned by Allah is other duration.

Following the splitting of the heaven and the earth, we see the verse 25 of the surah al-Abasa, It is interpreted that the process of heat decreasing was accelerated.

أَنَا صَبَبْنَا الْمَاءَ صَبًّا “That We pour down the water, pouring (it) down in abundance”.

The poured water meant in the verse 25 of al-Abasa was not water of rainfall or precipitation as we know fall from the sky. When Allah SWT show the function of rainfall, it is mostly decrebied with the verb *anjala*=send down as in surah al-Mu'minun verse 18.

In the formation of the earth water was poured and not sent down. It mean that Allah would cool the earth down. Sayyid Quthub's interpretation on this pouring water that the water was at first resisted by high degree of heat on the atmosphere. No water could approach the surface of the earth. Molecule of water (H<sub>2</sub>O) was broken down by high temperature of the atmosphere into free elements of hydrogen and oxygen. Boiling point of water is just 100<sup>0</sup> Centigrade, while the temperature of the earth was as high as 12.000<sup>0</sup> C. Due to the water was poured, and the earth's surface released and lost it heat, finally the water reached the surface of the earth and resides somewhere on the surface in the ground as liquid and on the atmosphere as gas or vapour. So, with water the hot earth was cooled.

After the earth cool and water placed in the basins as lakes, rivers an oceans. Water flowing over and beneath the earth is a key component of the cycling biogeochemical. Rainfall splashes over the outermost of earth crust, will gradually break the soil particles causing sheet erosion. Runoff erodes the surface forming rill erosion, and further deepens the rill to form gully as if the ground is clove. By means of water the crust of the earth has been split into fragments. This natural occurrence is in accordance with the verse 26 of Al-Abasa.



ثُمَّ شَقَقْنَا الْأَرْضَ شَقًّا ۖ فَأَنْبَتْنَا فِيهَا حَبًّا

"And We split the earth in fragments. And cause the grain to grow therein"

Water is the initial agent in earth evolution. Allah proceeded the formation of the crust of the earth by splitting it. Chemically, water is a good solvent and physically was the only material in contact with the earth. Fragmentation of the crack earth into smaller particles by water. Water as physical entity erodes the crust of the earth through erosion, and as chemical substance decomposes the earth through the decomposition process. The crust of earth is broken down into soil particles smaller and smaller in size leading to form soil texture.

Soil texture refers to the amount of sand, silt and clay in a soil sample. The distribution of particle size determines the soil texture. A good soil texture is a balance composition of soil fractions enabling the growth and development of plant roots. Then, after the earth is formed suitable for cultivation, Allah grows seeds therein. Allah prepares the earth for His creatures in perfect condition, plant and vegetation are grown. In the agricultural or biological view point, vegetation is the first chain of life cycle. Vegetation supplies food for human and herbivorous animal, and herbivorous animal will supply meat for human or be the prey of carnivorous animal. However, this life cycle is depends on water. All of these living organisms will not survive in the extinct of water. With water all living organisms survive their life.

### 3. From Water Came the Life

The Qur'an states that all living things are from water.

وَجَعَلْنَا مِنَ الْمَاءِ كُلَّ شَيْءٍ حَيٍّ

and Allah created every animal from water, too.

... وَاللَّهُ خَلَقَ كُلَّ دَابَّةٍ مِّن مَّاءٍ

Allah hath created every animal of water..."

It had been debating on origin of life since the time of Aristotel (4 centuries before Christ). At that time the predominant theory was based on a concept of spontaneous generation. It was said living creatures are derived from inanimate matter spontaneously. This theory was discredited by renaissance scientists (around the 17<sup>th</sup> century) as Louis Pasteur (1862) and others western scientists. They concluded their observations that living organism appears from other living organism. This theory called biogenesis that is *omne vivum ex ovo* means every living thing is from its eggs.

As a matter of fact, actually muslim scientists, a long time before the western scientists found the theory, had known the theory. Avicenna (Ibnu Sina) (980-1037) in his famous book al-Qonun fi al-Thibb (the Canon of Medicine) had formulated a manual to treat contagious microorganisms, and wrote many thing about microorganisms and chemicals. It means Avicenna had known the origin of outbreak of deceases caused by microorganism long before Louis Pasteur knew it.

Where from the first living organisms comes, scientists developed several theories. Recent scientific theory says that life emerged from a long increasingly complex chain of chemical reactions. The chemical reactions came from the depths of oceans because atmosphere was not sufficiently safe to protect living organism from ultraviolet radiation. Discovery of filament structures smaller than bacteria containing DNA in deep rocks. Biologist had long detected and studied the existence of archae that is microorganism, bacterium-like organism, living in harsh ecology such as in deep under surface of ocean.

This organism starts the chain of food promoting the growth and development of other living organism. However, we have noted that Qur'an does not contain an exclusive endorsement for evolution. We believe in Qur'an that Allah created living things from water and we reemphasize the absolute power of Allah over everything.

Water contains in resevoirs in different steps within the so called water cycle. The water cycle is consisting of five parts.



A person can live without food for more than a month, but can live for only a few days without water. All living things need water to survive. The human body needs two liters of water a day. The average human body is composed of about 55% water. Most of our food is water; tomatoes 95%, spinach 91%, milk 90%, apple 85%, potatoes 80%, and beef 61%.

The property of water is able to dissolve other substances. Were it not for the solven property of water, life could not exist because water transfers nutrients vital in animal and plants and also in human body. There are many therapeutic measures recommended to drink water, plain water.

The largest accounting for 97% water is in the collection of oceans. The second largest quantity as much as 2 % is water stored in solid form in the ice caps and glaciers. And the rest, in small quantity, water contained within all living organisms. The distribution of the earth's water are as groundwater 0.68%, in lakes 0.01%, as soil moisture 0.005%, as gas in atmosphere 0.001%, in streams and rivers 0.0001%, and contained in the bodies of living organisms (animals' body including human body and vegetation) 0.00004%.

The volume of water is never change since it came down on the earth. It is always the same amount of water on the surface of the earth. The storehouse for the majority of all water on earth are the oceans. It is estimated that the oceans supply about 90% of the evaporated water that goes into the water cycle. Water cycle or hydrologic cycle describes the continuous movement of water on and below the surface of the earth. States of water can change among the state of liquid, vapour and solid. Vapour is gas form, while solid is in the form of ice. Sun energy drives water makes it evaporates as paviour into the air. Wind blows vapour into the air high up to the sky. The vapour rises into the air where cooler temperatures cause it to condense into clouds. When the clouds reach position high enough where it precipitates into drops of water (precipitation) and fall off the sky as rainfall. Concerning sending down water from the sky, Allah states it in surah al-Mu'minun part of verse 18.

وَأَنْزَلْنَا مِنَ السَّمَاءِ مَاءً بِقَدَرٍ فَأَسْكَنَتْهُ فِي الْأَرْضِ ۖ وَإِنَّا عَلَىٰ ذَهَابٍ بِهِ لَقَادِرُونَ

"And We send down water from the sky according to (due) measure, and We cause it to soak in the soil; and We certainly are able to drain it off (with ease)".

Water from the sky as a gift for all the creatures on earth in the form of rainfall is sent in measure and not in pouring.

Water is very important to life. The extinction of water will cause the existing biosphere on the earth would not be possible. The detrimental of green house effect is relieved by the existence of water vapour that cools the air temperature. Without the cooling effect of evaporation the greenhouse effect would lead to a much higher temperature of 67 °C. If this happens only the thermophylic (withstand living in high temperature condition) organism can withstand the heat and human must stay all day long in an air conditioned room.

Rainfall is partly absorbed by land and a portion of rain water soaks into the ground as infiltration water gravitational water. Water infiltrates deep to the saturated subsurface rock forming subterranean water surface. The massive rock acts as container for storing huge valume of freshwater. Water also fills the so called micropores and macropores of soil particles. In dry condition these pores are filled with air or gas, but when rainwater comes, water replaces the air. Pores for some times function as water container to supply the roots. Perhaps, this occurrence of storing water in the earth which is meant by the word فَأَسْكَنَتْهُ means stay or settle in position for a certain time. Water stores in soil particles and in subsurface rock may seep back into stream or opening in the land surface and emerges as freshwater springs or ground water discharge. In the region where the land is covered with dense vegetation, its roots system can increase the infiltration and the water holding capacity. Discharged water from this region continuous flowing over time even till the end of dry season, allowing the streams and rivers ever flowing its water all year round supplying for human use and maintaining the life of organisms.



Water lodging in the earth as capillary water filling the pockets of soil pores have been the water supplier in dry season. Allah sent water down as rainfall in certain region is in due measure. We can prove this hint with scientific facts. Schmidt and Ferguson in 1951 made careful observation on this matter. They observed the rainfalls in sub districts throughout Indonesia and the Papua New Guinea. They mapped the regions according to measurement of rainfall and categorized the regions into several categories of rainfall types. Oldeman in 1975 had made Agro-climatic map of Java and Madura.

Rainfall type is measured by Q value. Q is ration of wet and dry month. Wet month is considered when rainfall in the month is more than 100 mm. And dry month is month with rainfall less than 60 mm. Regions are categorized into region A (very wet); B (wet); C (slightly wet), D (fair); E (slightly dry), F (dry); G (very dry), H (extremely dry).

On the agroclimatic map of Oldeman and in notes of rainfall types of Schmidt and Ferguson, the regions of northern Bandung as Ledeng, Lembang and Cisarua are belong to region B. Regions of Tangkuban Prahu Mount's peak and Burangrang's peak are belong to A, while Bandung city region is region C. Northern Bandung as Purwakarta, South Karawang and Sumedang regency belong to C region, and coastal regions as North Karawang, Subang and Indramayu regencies are D or E region. The spreading of rain type categories was natural, then scientists observed them and got the result. We interpret the result and come to conclusion that God made the nature purposely and not by chance. Allah SWT send more water over Lembang region than Bandung, because Bandung region will be passed by water streaming down its way to the lower region. So do the northern regions as Karawang and Indramayu and coastal regions, they get less amount of rainfalls. This kind of distribution is the bestow from the Almighty God who know well the need of people and the capacity of region to hold water in the form of water holding capacity (measured).

If the coastal regions have more rainfall, of course there will be abundant water causing flood, because there will be a concentration of water flowing from upland region.

The Almighty God, Allah SWT has arranged and managed all these conditions for facilitating the life of his creatures.

### Conclusion

Scientific culture in the medieval era had formed high Islamic culture, and then came the period where the golden ages fade down. Now, islamic world is commencing to awake up by restructuring their scientific education brings to a new scientific paradigm in the hope of the second Islamic golden age.

Scientific approval describing verses of Qur'an are phenomenal among scientists. There are very clear and positive and undeniable to contemplate then to investigate the natural occurrence around us.

The creation of universe has a stated starting point that is the time of the separation between the heaven and the earth. Qur'an states that the heavens and the earth were joined together (as one unit of creation), before Allah clove them asunder.

Cosmology observation conducted gave indication that the universe is expanding. This makes conclusion that universe is seen to be expanding up to now, then it must have been smaller, denser and hotter in the past and united as one compacted entity.

Water is mentioned to be poured and sent down on the earth. Some interpreters predicted, poured water was needed among other to cool the hot earth, and to further process the formation of inhabitable earth. Due measured water is sent down as rainfall water (a gift) for all creatures to live on earth. Natural phenomena of this water distribution is apparent in agroclimatic works and the cycle of hydrology. Functions and roles of water in the life of creatures are very important. The thought of intelligent man may say "Were it not be water, life could not exist", but Allah has the absolute power over everything. As time goes and human culture develops, scientific theories as the product of human intelligence have changed, but scientific information in divine revelation provides muslim to curve their civilization.



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